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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/066,807 | 02/06/2002 | Philip S. Callahan | 0591.0150001 | 4457 |
| 26111 | 7590 | 06/30/2004 | EXAMINER | |
| STERNE, KESSLER, GOLDSTEIN & FOX PLLC 1100 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005 | | | JOHNSTON, PHILLIP A | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2881 | |

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/066,807

Applicant(s)

CALLAHAN, PHILIP S.

Examiner

Phillip A Johnston

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6-24-2004.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

Detailed Action

Claims Rejection – 35 U.S.C. 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-16,19,20, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howse, U.S. Patent No. 6,221,375 in view of Yamamoto, U.S. Patent No. 4,923,119.

Howse (375) discloses a layered peticidal composition that includes a paramagnetic core (diatomaceous earth) impregnated with pheromone and disposed to a diamagnetic material, which controls the pheromone emission, as recited in claims 1,4-6,8,9,11,14,15,20,22, and 23. See Column 2, line 7-40; Column 3, line 31-47; and Column 4, line 45-55.

Howse (375) as applied above fails to teach the use of a polyester based paramagnetic medium, as recited in claim 10. However, Yamamoto (119) discloses a sustained release pheromone dispenser that contains a pheromone compound within

Art Unit: 2881

layers of films made from a polymer selected from the group consisting of polyolefins, e.g., polyethylene and polypropylene, copolymers of ethylene and vinyl acetate, poly(vinyl chloride) and copolymers of vinyl chloride, polymers and copolymers of acrylic acid esters, polymers and copolymers of methacrylic acid esters, cellulose esters and cellulose ethers such as ethyl cellulose. The barrier action of these layers is lower than the layer A made from a poly(vinylidene chloride) or a copolymer of vinylidene chloride to permit permeation of the pheromone compound therethrough. See Column 5, line 23-34.

Therefore it would have been obvious to one of ordinary skill in the art that the pesticidal composition and method of Howse (375) can be modified to use polymer layers in accordance with Yamamoto (119), to provide barrier control of pheromone permeation.

The combination of Howse (375) and Yamamoto (119) discloses the claimed invention except for the specific range of values for diamagnetism, diameter of the base, color, dielectric constant, paramagnetism, and wavelength, as recited in claims 2,3,7,12,13, and 16 respectively. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the specific values, as recited in claims 2,3,7,12,13, and 16, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Regarding claim 19, Yamamoto (119) also discloses a prior art pheromone dispenser in which the sex pheromone compound is contained in a capillary tube

Art Unit: 2881

having an open end and emitted from the open end of the tube, and those in which the pheromone compound is wrapped in a sheet or bag of a plastic film

disclosed in Journal of Economic Entomology, volume 62, No. 2, pages 517-518 (1969). See Column 1, line 23-26; and Column 2, line 20-23.

3. Claims 17,18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howse (375) and Yamamoto (119), and in further view of Callahan (933).

The combination of Howse (375) and Yamamoto (119) fails to teach the use of a molecular control impregnated cloth, as recited in claims 17 and 18. However, Callahan (933) discloses a photonic ionic cloth (PICRA) impregnated with saline solution. See Column 1, line 33-39.

It is implied herein that the cloth can be impregnated with molecular control materials.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the pesticidal system of Howse (375) and Yamamoto (119) with the photonic ionic cloth of Callahan (933) to provide a pesticidal or herbicidal composition in various forms, to attract insects to the composition.

4. Claims 24-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howse (375) , Yamamoto (119), and Callahan (933), and in still further view of Callahan (049).

The combination of Howse (375) , Yamamoto (119), and Callahan (933) fails to teach the use tuning and modulating electromagnetic emissions from the molecular

Art Unit: 2881

control system, as recited in claims 24-32. However, Callahan (049) discloses a method and apparatus for emitting photonic waves which emulate natural waves which either attract or repel insects as desired. Emulation is accomplished through the use of a power source, a gas discharge tube, and a scatter surface soaked in an appropriate attractant. The photonic wave is, in turn, received by the dielectric waveguide(s) of an insect (i.e., the insect's antenna). By varying the discharge energy, the scatter surface, and/or the attractant, the present invention may be "tuned" to achieve effective performance with a wide range of insects. See Column 3, line 26-45.

Callahan (049) also discloses that adjustable grating 30 is constructed with the proper number of grooves to generally match the natural dimension of the dielectric scatter antenna or sensilla (spines) of the organism being controlled. See Column 6, line 64-67.

The combination of Howse (375) , Yamamoto (119), Callahan (933), and Callahan (049), discloses the claimed invention except for the specific frequency values recited in Claims 25-28. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select appropriate frequencies to tune the emissions to a wide range of insects, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Conclusion

5. Any inquiry concerning this communication or earlier communications should be directed to Phillip Johnston whose telephone number is (571) 272-2475. The examiner can normally be reached on Monday-Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor John Lee can be reached at (571) 272-2477. The fax phone number for the organization where the application or proceeding is assigned is 703 872 9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PJ

June 24, 2004


JOHN R. LEE
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